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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/521,158	01/13/2005	Ryo Minamida	2185-0743PUSI	8741
2292	7590	07/26/2006	EXAMINER	
BIRCH STEWART KOLASCH & BIRCH			OH, TAYLOR V	
PO BOX 747			ART UNIT	
FALLS CHURCH, VA 22040-0747			PAPER NUMBER	

1625

DATE MAILED: 07/26/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/521,158	MINAMIDA ET AL.	
	Examiner	Art Unit	
	Taylor Victor Oh	1625	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 January 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>1/13/05</u> . | 6) <input type="checkbox"/> Other: _____ |

The Status of Claims

Claims 1-8 are pending.

Claims 1-8 are rejected.

DETAILED ACTION

Priority

1. It is noted that this application is a 371 of PCT/JP03/08555 filed on 07/04/2003, which has a foreign priority document ,Japan 2002-208056 filed on 07/17/2002.

Drawings

2. None.

Claim Objections

Claim 2 is objected to because of the following informalities:

In claim 2 , the chemical term " nitrocy" is recited. This expression is mis-spelled.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-8 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 1, the phrase "a substituted" is recited. This expression is vague and indefinite. In the absence of the specific moieties intended to effectuate modification by the "substitution" or attachment to the chemical core claimed, the term "substituted" renders the claims in which it appears indefinite in all occurrences wherein applicants fails to articulate by chemical name, structural formula or sufficiently distinct functional language, the particular moieties applicants regards as those which will facilitate substitution, requisite to identifying the composition of matter claimed. Therefore, an appropriate correction is required.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.

Art Unit: 1625

2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 1-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Krief (US 4,408,066) in view of Anelli et al (J. Org. Chem. 1987, 52, p. 2559-2562).

Krief teaches a method for converting from 2,2-methyl-3-hydroxymethyl-cyclopropane-1-carboxylate to 2,2-methyl-3-formyl-cyclopropane-1-carboxylate in the presence of an oxidizing agent, such as chromic anhydride and pyridine hydrochloride in methylene chloride (see col. 6, lines 60-66).

However, the instant invention differs from the prior art in that the use of claimed oxidizer hypochlorite and nitroxy compound, hydrogen carbonate are unspecified; the pH of the reaction is also unspecified.

Anelli et al teaches a process for oxidizing primary and secondary alcohols to the corresponding aldehydes as shown in a summary (see page 2559, a lower section):

Primary alcohols are quantitatively oxidized to aldehydes in a few minutes at 0 °C in CH₂Cl₂-0.35 M aqueous NaOCl in the presence of catalytic amounts of 4-methoxy-2,2,6,6-tetramethylpiperidine-1-oxyl (3b). Cocatalysis by Br⁻ and buffering of pH at 8.6 with NaHCO₃ are also required. Secondary alcohols are converted to ketones. Further oxidation of aldehydes to carboxylic acids is slow, but the reaction is completed in a few minutes under the same conditions by addition of catalytic amounts of phase-transfer catalyst. All reactions are highly selective. Only a slight excess of NaOCl is required. The method can be applied to saturated alkyl and aryl alkyl substrates.

Krief teaches expressly the method for changing from 2,2-methyl-3-hydroxymethyl-cyclopropane-1-carboxylate to 2,2-methyl-3-formyl-cyclopropane-1-carboxylate in the presence of the oxidizing agent in methylene chloride (see col. 6, lines

Art Unit: 1625

60-66). Similarly, Anelli et al does teach a generic process for oxidizing any primary alcohols to the corresponding aldehyde in the presence of hypochlorite and nitroxy compound. Both prior art have shared a common oxidation process for producing the aldehyde product from the alcohol by a similar reactant ;for example, an oxidizing agent). Therefore, it would have been obvious to the skilled artisan in the art to be motivated to employ Anelli's et al hypochlorite and nitroxy compound as an alternative to chromic anhydride and pyridine hydrochloride oxidizer in order to enhance the selective oxidation of the primary alcohol to the corresponding desired aldehyde product. This is because the skilled artisan in the art would expect such a modification to be successful and efficient as shown in the prior art.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Taylor Victor Oh whose telephone number is 571-272-0689. The examiner can normally be reached on 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas McKenzie can be reached on 571-272-0670. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 1625

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Myhoda
7/23/06